



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0015; Project Identifier AD-2021-00832-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2020-23-05, which applies to certain Airbus Helicopters Model EC225LP helicopters. AD 2020-23-05 requires inspecting the control rod attachment yokes (yokes) of certain main rotor (M/R) rotating swashplates (swashplates), establishing a life limit, a one-time inspection of stripped yokes, and applicable corrective actions. Since the FAA issued AD 2020-23-05, the FAA has determined that a revised compliance time is necessary for swashplates that have accumulated less than seven years since the date of manufacture and that clarification is necessary for the condition that concludes with a dye penetrant inspection of the yoke. This proposed AD would continue to require the actions in AD 2020-23-05, with a revised compliance time for a certain inspection. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone: (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0015; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: [hal.jensen@faa.gov](mailto:hal.jensen@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0015; Project Identifier AD-2021-00832-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: [hal.jensen@faa.gov](mailto:hal.jensen@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The FAA issued AD 2020-23-05, Amendment 39-21321 (85 FR 73604, November 19, 2020), (AD 2020-23-05), for certain Airbus Helicopters Model EC225LP helicopters. AD 2020-23-05 requires inspecting the yokes of certain swashplates, establishing a life limit, a one-time inspection of stripped yokes, and applicable corrective actions. AD 2020-23-05 was prompted by a crack in a swashplate yoke, which could result in failure of the yoke, loss of M/R control, and subsequent loss of control of the helicopter.

EASA AD 2019-0074, dated March 28, 2019 (EASA AD 2019-0074), was issued by EASA, which is the Technical Agent for the Member States of the European Union, to supersede EASA AD 2017-0191R2, dated December 15, 2017 (EASA

AD 2017-0191R2). EASA AD 2019-0074 followed Airbus Helicopters revising Emergency Alert Service Bulletin (EASB) No. 05A051, Revision 1, dated November 16, 2017, to Revision 2, dated February 26, 2019, to establish a life limit (also called a service life limit) of 12 years for the swashplate and add a reporting requirement if there is a crack or corrosion in a yoke. EASA advises that additional analysis determined that it is necessary to introduce the new life limit for the affected swashplates. Accordingly, EASA AD 2019-0074 retains the requirements of EASA AD 2017-0191R2 and adds a life limit and a reporting requirement.

#### **Actions Since AD 2020-23-05 Was Issued**

Since the FAA issued AD 2020-23-05, the FAA has determined that a revised compliance time is necessary for swashplates that have accumulated less than seven years since the date of manufacture. This revised compliance time matches the compliance time specified in EASA AD 2019-0074. The FAA has also determined that paragraphs (g)(3)(i) and (g)(4)(iii)(A) of this AD need clarification regarding when it is necessary to do a dye penetrant inspection of the yoke.

#### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

#### **Related Service Information Under 1 CFR Part 51**

The FAA reviewed one document that co-publishes two Airbus Helicopters EASB identification numbers: EASB No. 05A051 for Model EC225LP helicopters and EASB No. 05A046 for non-FAA type-certificated Model EC725AP helicopters, each Revision 2 and dated February 26, 2019. This service information specifies inspections for swashplate part number (P/N) 332A31-3074-00 and P/N 332A31-3074-01. This service information specifies procedures for a repetitive inspection of the yokes for a crack and a one-time inspection of the stripped yokes for corrosion and a crack. If in

doubt about whether there is a crack, this service information specifies performing a nondestructive inspection. This service information also specifies touching up the swashplate with varnish if there is corrosion, removing any damage within allowable limits, and refinishing the yokes. If there is a crack in a yoke, this service information specifies replacing the swashplate. This service information also specifies a life limit of 12 years since the date of manufacture for the swashplates and reporting requirements if a crack or corrosion is discovered. The Director of the Federal Register approved EASB No. 05A051, Revision 2, dated February 26, 2019, for incorporation by reference as of December 24, 2020 (85 FR 73604, November 19, 2020). EASB No. 05A046, Revision 2, dated February 26, 2019, is not incorporated by reference in this AD.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Proposed AD Requirements in this NPRM**

This proposed AD would retain all of the requirements of AD 2020-23-05. This proposed AD would require inspecting the yokes of certain swashplates, compliance with the established life limit, and a one-time inspection of stripped yokes. This proposed AD would also include a revised compliance time for the initial visual inspection of the yokes on swashplates that have accumulated less than seven years since the date of manufacture; and clarification that dye penetrant inspection of the yoke is required before further flight if no cracks are detected visually during the visual inspection. This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the EASA AD or Service Information.”

#### **Differences Between this Proposed AD and the EASA AD or Service Information**

EASB No. 05A051, Revision 2, dated February 26, 2019 requires performing a non-destructive inspection only if there is doubt whether there is a crack. Instead, this proposed AD would require a visual inspection and if no cracks are visually detected, would require a non-destructive inspection.

The EASA AD specifies instructions for reporting inspection results; this proposed AD would not.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 28 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

#### **Estimated costs for required actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Determination of the manufacture date of the swashplate	0.5 work-hour X \$85 per hour = \$43	\$0	\$43	\$1,204
Inspecting the yokes	0.25 work-hour X \$85 per hour = \$21 per inspection cycle	\$0	\$21 per inspection cycle	\$588 per inspection cycle
Removing grease, stripping the yokes, and inspecting the stripped yokes	8 work-hours X \$85 per hour = \$680	\$0	\$680	\$19,040
Creating a life limit record	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$2,380

The new requirements of this proposed AD add no additional economic burden.

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

### Estimated costs of on-condition actions

Action	Labor cost	Parts cost	Cost per product
Removing any corrosion or repairing damage within the allowable limit	3 work-hours X \$85 per hour = \$255	\$0	\$255
Replacing the swashplate	6 work-hours X \$85 per hour = \$510	\$85,661	\$86,171
Dye-penetrant inspection	6 work-hours X \$85 per hour = \$510	\$50	\$560

### Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2020-23-05, Amendment 39-21321

(85 FR 73604, November 19, 2020); and

b. Adding the following new airworthiness directive:

**Airbus Helicopters:** Docket No. FAA-2022-0015; Project Identifier AD-2021-00832-R.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2020-23-05, Amendment 39-21321 (85 FR 73604, November 19, 2020) (AD 2020-23-05).

#### **(c) Applicability**

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated in any category, with a main rotor (M/R) rotating swashplate (swashplate) part number (P/N) 332A31-3074-00 or P/N 332A31-3074-01 installed.

#### **(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6230, Main Rotor Mast/Swashplate.



**(e) Unsafe Condition**

This AD was prompted by a crack in a swashplate control rod attachment yoke (yoke). The FAA is issuing this AD to detect and correct a crack in a yoke. The unsafe condition, if not addressed, could result in failure of the yoke, loss of M/R control, and subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

Before further flight, review Appendix 4.A. of Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 2, dated February 26, 2019 (EASB 05A051) to determine the date of manufacture of the swashplate.

(1) If the swashplate has accumulated 12 or more years since the date of manufacture, remove from service the swashplate.

(2) If the swashplate has accumulated less than 12 years since the date of manufacture, create a component history card or equivalent record indicating a life limit of 12 years since the date of manufacture. Thereafter, continue to record the life limit of the swashplate on its component history card or equivalent record and remove from service any swashplate before accumulating 12 years since the date of manufacture.

(3) For each swashplate that has accumulated less than 7 years since the date of manufacture, within 15 hours time-in-service (TIS) or 7 days, whichever occurs first after the effective date of this AD, and thereafter at intervals not to exceed 15 hours TIS or 7 days, whichever occurs first, until the swashplate accumulates 7 years since the date of manufacture, visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A05.

(i) If no cracks are visually detected, before further flight, perform a dye penetrant inspection of the yoke for a crack.

(ii) If there is a crack on a yoke, before further flight, remove from service the swashplate.

(4) For each swashplate that has accumulated 7 or more years, but less than 12 years, since the date of manufacture, within 100 hours TIS:

(i) Remove the grease from areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051. Using a plastic spatula, strip areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051. Do not use a metal tool to strip any area of a yoke.

(ii) Inspect areas (E), (F), (G), (H), (J) and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051 for corrosion, pitting, and loss of material.

(A) If there is any corrosion less than 0.0078 in. (0.2 mm), before further flight, remove the corrosion and apply varnish (Vernelec 43022 or equivalent) to the surface of areas (E), (F), (G), (H), (J) and (K).

(B) If there is any pitting or loss of material of less than 0.0078 in. (0.2 mm), before further flight, remove the damage by sanding with sandpaper 200/400 or 330.

(C) If there is any corrosion, pitting, or loss of material of 0.0078 in. (0.2 mm) or greater, before further flight, remove from service the swashplate.

(iii) Visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A051.

(A) If there are no cracks, before further flight, perform a dye penetrant inspection of the yoke for a crack.

(B) If there is a crack on a yoke, before further flight, remove from service the swashplate.

#### **(h) Credit for Previous Actions**

If you performed the actions in paragraph (g)(4) of this AD before the effective date of this AD using Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 1, dated November 16, 2017, you have met the requirements of paragraph (g)(4) of this AD.

#### **(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person

identified in paragraph (j)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

(1) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

(2) For service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone: (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0074, dated March 28, 2019 (EASA AD 2019-0074). You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2022-0015.

Issued on January 20, 2022.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2022-01440 Filed: 1/25/2022 8:45 am; Publication Date: 1/26/2022]